

XIX. *Notes on some Syrphidæ collected near Aden by Colonel J. W. Yerbury in February and March, 1895.* By GEORGE HENRY VERRALL, F.E.S.

[Read October 5th, 1898.]

SOME very interesting species of *Syrphidæ* were collected near Aden by Col. J. W. Yerbury in the early part of 1895, and although he has succeeded in identifying almost all of them, he has asked me to publish an account of them.

There are fifteen species in the collection, and I shall as far as possible use Col. Yerbury's own notes, which I place in inverted commas.

1. *Paragus serratus*, Fabr.

"Very common throughout the neighbourhood—in Ceylon too it may be considered the commonest and most generally distributed Syrphid found in the island."

This species varies considerably in coloration, like most species of *Paragus*. Col. Yerbury's nine specimens are all males, some of which have blackish markings on the disc of the third abdominal segment, and also have the hindmargin of the fourth segment broadly black, as well as all the genitalia. The middle black line down the face is sometimes not very distinct. The grey lines on the front part of the thorax distinctly diverge.

2. *Paragus longiventris*.

Loew, Dipt. Sud.-Afr., p. 295.

"Uncommon; only three specimens, Lahej and Hait-halhim, March, 1895."

This species is easily distinguished by the shape of its abdomen. Loew described it from Kaffraria, and therefore it probably occurs on all the East African coast. The pubescence on the eyes is so slight that it is not easily detected, but the microscopical pubescence on the wings extends over the whole of the wings, except on the basal cells.

3. *Syrphus adligatus*.

Wied., Auss.-eur. Zweifl., ii, p. 122.

I am of opinion that a single female taken by Col. Yerbury may belong to this species, rather than to "*S. claripennis?* Loew, etc.," as suggested by him, though he also suggested a comparison with *S. adligatus*. Identifications from a single specimen, especially when a female, cannot be conclusive in such groups as this. The specimen was captured at Aden, February 23, 1895.

4. *Syrphus ægyptius*.

"*Syrphus ægyptius*, Wied., Auss.-eur. Zweifl., ii, p. 133.

? *Scæva scutellaris*, Fabr., Syst. Antl., p. 252, 15.

? *Syrphus splendens*, Dolesch., Nat. Tijd. Ned. Ind., x, p. 410, pl. i, fig. 3.

? *Syrphus javanus*, Wied., *op. cit.*, ii, p. 131.

Very common. Can this species be kept distinct from *S. scutellaris* (Fabr.)? Specimens from Ceylon and India appear to be nearer to *ægyptius* than to *scutellaris*. Wiedemann's type was from Egypt,—Fabricius's from Tranquebar, not Mogador as erroneously stated by Loew (Dipt. Sud.-Afr., p. 303). It is a common species in Ceylon and also in the Deccan (neighbourhood of Poonah and Mahableshwar?), though the specimens from this locality are not properly labelled."

I see no objection to sinking *S. ægyptius* under *S. scutellaris*. It is very divergent from the European species of *Syrphus*, and tends towards *Sphærophoria*. The species is very variable, as the basal abdominal band is often entire, even in the female, though in that sex the abdominal bands are narrower and much more sharply defined. I doubt whether *S. javanus* is a synonym, but I think that *S. splendens* is only a variety with dark rings on the hind femora and tibiæ.

5. *Asarcina salviæ*, Fabr.

"*Scæva salviæ*, Fabr.

? *Syrphus erictorum*, Fabr., Spec. Ins., ii, p. 425.

One specimen from Aden.

There seems considerable doubt as to the name under which this species should stand—*erictorum* appears to have priority, and though Fabricius (Syst. Antl., p. 250)

sinks the name '*Syrphus ericetorum*' in favour of '*Scæva salviæ*,' still the question arises whether the matter was not out of his hands, and whether, having described the insect, he was not bound to abide by his first description. This is a common species throughout the Oriental Region."

The old description of *S. ericetorum* is unrecognisable.

6. *Baccha sapphirina*.

"*Baccha sapphirina*, Wied., Auss.-eur. Zweifl., ii, p. 96.

Very common in the neighbourhood of Aden, this species occurs also in Ceylon (rare) and the Bombay Presidency (Deccan?) where it appears to be uncommon."

7. *Eristalis æneus*, Scop., var. *taphicus*.

"*Eristalis taphicus*, Wied., Auss.-eur. Zweifl., ii, p. 191.

Very common."

When examining various type collections of Diptera in 1896, I came to the conclusion that I could not consider *E. taphicus* as anything but a tropical form of *E. æneus*, and the specimens taken by Col. Yerbury strongly confirm me in that opinion; some of his males would pass for true *E. æneus*, and I possess European and even British females which might be considered almost *E. taphicus*.

8. *Eristalis tæniops*.

"*Eristalis tæniops*, Wied., Zool. Mag., xi, p. 42.

Eristalis torridus, Walk., List Dipt. B.M., p. 612.

Eristalis ægyptius, Walk., List Dipt. B.M., p. 621.

A single specimen Aden, 23.2.95."

9. *Eristalis quinquelineatus*.

"*Eristalis quinquelineatus*, Fabr., Spec. Ins., ii, p. 425, 21.

? *Eristalis punctifer*, Walk., Ent., v, p. 274.

? *Eristalis tabanoides*, Jaennicke, Abh. Senckenb. Ges., vi, p. 402.

Rather uncommon, found sitting on the wet mud

(where the water has splashed over) round the wells and water casks at the tanks. Walker records *E. punctifer* from Tajurra."

I believe that Col. Yerbury has correctly identified this species, but I had hitherto considered *E. punctifer*, Walk., as a doubtful synonym of *E. tenuiops*.

10. *Simoides crassipes*.

"*Eristalis crassipes*, Fabr., Syst. Antl., p. 237, 22.

Simoides crassipes, Loew, Dipt. Sud.-Afr., p. 322.

Only one specimen taken at Lahej, 7.3.95. This species was seen flying round the flowers of *Terminalia catappa* in company with the bee *Apis indica*; it was extremely difficult to distinguish the two insects apart when on the wing."

This case of mimicry is very interesting.

11. *Helophilus africanus*, sp. n.

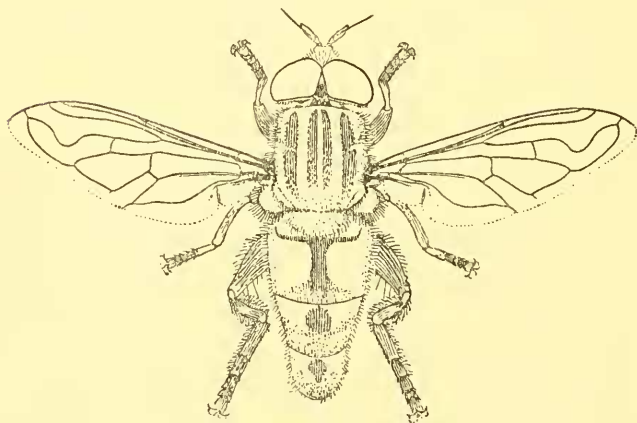


FIG. 1. *Helophilus africanus*, sp. n., ♂.

Oculi maris contigui; thorax niger, vittis quinque flavis; abdomen ochraceum opacum, macula nigra in segmento secundo T-formi, in segmentis tertio et quarto rotundatis; pedes nigri, genibus, tibus anterioribus annuloque in tibiis posticis obscure ochraceis; femora omnia crassa, postica inferius apud apicem scabra; tibiæ omnes villosæ; tarsi postici in basi extremâ pilorum globuliferorum fasciculo praediti.

Long. corp. circa 13 millm.

♂. Face yellow, with an ill-defined median black line ; it is almost perpendicular from the antennæ to the upper mouth edge. The face and frons are clothed with rather abundant yellow pubescence ; the back of the head bears longer paler pubescence below ; the vertex is black about the ocelli, but greyish-yellow in front, and bears short black pubescence. Eyes touching for a small space. Antennæ dull blackish, basal joints sometimes dull reddish ; arista yellowish-brown.

Thorax black with five distinct yellow lines, the middle line being quite distinct though rather narrower than the others.

Abdomen reddish-ochreous ("rothlichochergelb" of Loew), dull ; the second segment has the base narrowly, and an incomplete wider dorsal line, blackish ; the third and fourth segments bear an almost circular blackish dorsal spot near the base ; all the hindmargins of the segments show obscure signs of darkening ; genitalia brown, rather shining.

Legs dull black, with the tips of the femora dull ochreous and more extensively so behind the hind femora ; the anterior tibiæ are all dull obscure ochreous ; while the hind tibiæ have the base and a rather broad middle ring obscurely ochreous, and the two basal joints of the middle tarsi and the base of the front tarsi are similarly coloured. All the femora are thick, the middle pair being least so and the hind pair most so ; the hind femora are not serrulate beneath, but bear black bristly hairs and a scabrous patch near the tip composed of short black bristles, while there is the usual scabrous black patch at the base in front ; all the femora bear abundant soft yellow pubescence. Tibiæ all with abundant soft pubescence, mainly yellow but mixed with black ; hind tibiæ dilated and curved, bearing long shaggy black pubescence beneath. Tarsi all dilated, at any rate towards the tip, the hind pair bearing rather long shaggy black pubescence in front, and also bearing at the base beneath the peculiar knob-headed black hairs, which peculiar hairs can be traced, though very short, over all the sole of the basal joint.

Wings slightly tinged with brown, dullish. Squamæ and halteres orange.

♀. Similar but with shorter pubescence ; frons narrow for a female, all brownish-yellow except on the shining bare space just above the antennæ, its pubescence being all yellow except just about the ocelli. Abdomen less sharply marked, all the hindmargins being greyish glaucous, while the round black spot on the fourth segment has a tendency to spread out into two sloping darkened lines, of which there is some indication on the third segment ; the fifth segment is mainly ochreous yellow with an ill-defined shining black space about the middle of the hindmargin. Legs much paler, the

femora ranging from dull brownish-black with a paler tip to being all dull ochreous except a blackish streak above the anterior pairs on the apical half, or sometimes the basal half of the hind femora blackish; the hind tibiæ have only obscure blackish patches before and after the middle; pubescence mostly short and inconspicuous, but there are some scattered thin hairs beneath the hind femora, and there is a neat fringe beneath the hind tibiæ, besides which the short black bristles beneath the hind femora form a large irregularly crowded clump between the middle and the tip; the knob-headed hairs beneath the basal joint of the kind tarsi are almost as distinct as in the male.

"*Helophilus* sp. nov? near *H. senegalensis*, Macq., Dipt. exot., ii, p. 61.

Not uncommon in the bed of the stream at Haithalhim." Three males and five females.

I am prepared to go further than Col. Yerbury, and to say that I think that the species is *H. senegalensis*, but as the insect described by Macquart could be identified only by a reference to the type, which is not in Bigot's collection, I prefer to give a name and description which I hope may serve for identification.

This species is very near *H. caffer*, Loew, but it has the middle yellow line on the thorax far more distinct, and also has different abdominal markings. In all probability it is one of a group of closely allied African species which would come under Rondani's genus *Mesembrius*, in which the eyes of the male touch and of which one species only, *H. peregrinus*, Loew, is known to occur in Europe. There are many species closely allied to *H. trivittatus* in Europe and North America, and in Arctic regions there is a group circling round *H. borealis*.

12. *Syritta latitarsata*.

Syritta latitarsata, Macq., Dipt. exot., ii, p. 75.

Colonel Yerbury's notes (" *Syritta abyssinica*? Rondani, Ann. Mus. Genov., iv, p. 282; fairly common at Lahej and Haithalhim") merely suggest that this and the next species, which he also refers to, may be *S. abyssinica* of Rondani. I cannot agree with this, but I believe that the little-known *S. latitarsata* of Macquart is clearly represented by three males and four females among Col. Yerbury's captures.

A detailed description of this species may be of value, as the species of *Syritta* are so very closely allied and so insufficiently distinguished.



FIG. 2. *Syritta latitarsata*, right hind leg, from behind.

S. latitarsata. About the size of *S. pipiens*, but the abdomen is narrower and longer. Face, frons, and all the vertex except about the ocelli glossed with silvery white tomentum; face and frons without pubescence except for a few white hairs down the sides of the face; the sides of the mouth and the very small jowls are yellowish; the back of the head is narrow and is whitish, and bare until the top where there is a pale fringe behind the eyes and vertex; vertex shining black about the ocellar triangle but otherwise glossed with silvery white; it is all bare except for whitish pubescence on the elongated front part. Eyes touching for about six facets and consequently the vertex is about three times as long as the frons; the facets on this front part where the eyes touch are considerably dilated. Antennæ entirely pale orange, without any hairs or bristles on the basal joints; the third joint is nearly twice as long as deep; arista placed at about a third from the base, brownish-yellow, and about as long as the antennæ.

Thorax dull blackish, densely punctate, with whitish reflections; humeri whitish with a faint yellow tinge; a large space behind the humeri, spreading almost across the suture and over all the pleuræ whitish and also a pair of tolerably broad short lines on the front part of the disc of the thorax; the disc of the thorax is practically bare, as the pubescence, which consists of minute appressed whitish hairs, is hardly visible, but the upper part of the pleuræ and the adjoining parts of the thorax bear a slight whitish pubescence. Scutellum black, densely punctate, disc flattened and slightly marginate at the tip, practically bare as the bristles are so short.

Abdomen longer than the head (without antennæ), thorax and scutellum together, and constricted about the second and third segments ; the second and third segments are almost all yellow, but the second segment has a black dorsal line and hindmargin, while the third segment has only a black hindmargin (except the extreme margin which is whitish), and a slightly darkened dorsal line ; the fourth segment widens out and is mostly shining blackish and bearing tiny black bristles ; the sides of the first segment and the basal corners of the fourth segment are yellowish ; the end of the fourth segment is dark brownish-red, but the extreme hindmargin is whitish ; the sides of the second segment bear at the base the usual remarkable fringe of white hairs, and all the other pubescence is very short and inconspicuous. Genitalia shining dark brownish-red, and bearing very soft whitish pubescence.

Legs mainly dark orange on the anterior pairs, but black on the hind pair ; anterior coxæ blackish, glossed with whitish grey ; middle femora slightly darkened beneath, and with a short fine whitish ciliation behind ; hind legs nearly all shining black, but the coxæ are glossed with whitish dust, and the legs are dark reddish on the trochanters, the extreme base of the femora, a band just after the middle of the femora which is scarcely extended to the upper side, the extreme base and a tolerably obvious band just after the middle of the tibiæ ; beyond which the tips of the tibiæ and the base of the tarsi are indistinctly red, and in fact the tibiæ are altogether slightly tinged with reddish ; the hind coxæ bear a slight whitish pubescence beneath ; the hind femora are considerably dilated on the apical half, and bear two rows of spines besides the short serration beneath, there being about eight regular spines behind and about five in front on this thick apical half ; hind tibiæ much curved ; *tarsi widely flattened*, even to the tip.

Wings very pellucid ; pale yellow about the base, the subcostal cell, and the stigma. Squamæ whitish with white fringes. Halteres pale orange.

♀. Face and frons whitish ; vertex shining black ; frons rather narrow on the upper part, and often with an indefinite rubbed dark crossband just above the middle, and it bears inconspicuous short white pubescence ; the facets on the front of the eyes are not dilated. Abdomen broader than in the male and not constricted ; the sides of the first segment are whitish-yellow, the second and third segments bear at the basal corners large yellowish triangular spots which leave little more black than a broad hindmargin and a less defined dorsal line, and on the third segment a narrow grey hindmargin ; the fourth segment is more brownish, with small whitish-grey spots at the basal corners, and with a whitish-grey

hindmargin. Legs similar to those of the male, but the reddish markings on the hind femora are often more extensive and more conspicuous; the spines on the hind femora are similar but shorter and rather less numerous; hind tarsi dilated, but not nearly so conspicuously as in the male.

Length about 8.5 millm.

S. abyssinica, if a good species, has probably blacker hind legs, a not yellow stigma, and not dilated hind tarsi. *S. bulbosus*, Walk., from Sierra Leone might be compared.

13. *Syritta fasciata*.

Syritta fasciata, Wied., Auss.-eur. Zweifl., ii, p. 103.

This may be represented by two males and one female taken at Haithalhim on March 30th, 1895. The specimens represent a small species which seems to agree with Wiedemann's description of what must be the female, though Wiedemann does not mention any sex. The species may be worthy of a description as minute as I have given of *S. latitarsata*, but as the material is weak and the identification less certain, I will only say that the female specimen answers well to his description, but that the frons is whitish, with the vertex and a cross-band above the middle black; in the males the spots on the second and third segments of the abdomen are much larger, and occupy all those segments except a dorsal line and the hindmargin, while in one male the spots actually join on the foremargin of the third segment. The abdomen of the male is but slightly constricted, the third segment being the narrowest; the fourth segment is black, rather shining, and rather long, with a small whitish spot at each basal corner, and with a brownish-yellow hindmargin. The legs of the male may be less black than in the female, as although the legs of the one female taken by Col. Yerbury would almost agree with Wiedemann's description of being almost all black, yet one male has the usual orange band about the middle of the hind femora, and the other male has the basal two-thirds or more of the hind femora orange.

Some of the best characters to distinguish this species must be its small size, orange antennæ, yellow face, and comparatively unarmed hind femora.

14. *Eumerus lunatus*.

"*Syrphus lunatus*? Fabr., Ent. Syst., iv, p. 296, 64.

Rare, only three specimens taken. It sits on the stems of *Salvadora persica* and is difficult to catch, as it keeps in the thick of the bush."

The specimens are all males, and, I think, correctly named. Wiedemann has redescribed the species (Auss.-eur. Zweifl., ii, p. 111).

15. *Eumerus obliquus*.

"*Syrphus obliquus*, Fabr., Syst. Antl., p. 194, 28.

Rare ; three specimens taken in Aden, 15.2.95."

This species has been redescribed by Wiedemann (Auss.-eur. Zweifl. ii, p. 112) and again by Loew (Dipt. Süd-Afrik.), wherein Loew accidentally in his diagnosis says "*fronte nigro-pilosa*" instead of *albo-pilosa*.